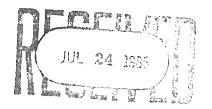
OFFICE OF TOXIC SUBSTANCES CODING FORM FOR GLOBAL INDEXING

Microfiche No. (7) • OTS 0206826	
Doc I.D. 878216074 3 Old Doc I.D. 8pm 4	
	-
Date Produced (i) 6 Date Rec'd (6) 7 Conf. Code ● 8	1
192874 192485	
Check One: Publication Internally Generated Externally Generated	
Pub/Journal Name 9	oprocincy 2224 demonstrates
9	_
Author(s) 10	Allows and the second
Organ. Name	
Dow CHEM CO	d de la constante de la consta
Dept/Div]	_
10 0 10	_
P.O. Box 13 Street No./Name 2026 WILLARD H 2000 CTA	
MIDLAND Blace MI 1986.74 SOUMERS	
MID No. (7) 19 D & B NO. (11) 20	
Contractor 21	
· R.F. U.P. HEASD 8.D. SY HS FN	· ·
Doc Title 23	
TOXICOLOGICAL PROPERTIES AND	week Spanstanding
INDUSTRIAL HANDLING HAZARDS	-
OF LOWANOL TBH WITH COVER LETTE	<u>.</u>
1 1000 11,000 11,017 00 01 11 10 00 10 1	4
	_
	Silvini de la companie de la compani
Chemical Name (300 per name) 25 CAS No. (10) 24	-
TP-12/15/12 (11/14 MANA) -11 1/2-22 (14
TRIETHYLENE CLYCOL MONDBYTYL 143-20-6	18/
ETHER	
	1/



THE DOW CHEMICAL COMPANY

July 22, 1985



MIDLAND, MICHIGAN 48674

Document Control Officer U.S. Environmental Protection Agency TSCA-8D1 P.O. Box 2060 Rockville, MD 20852

Re: OPTS-82022

Dear Sir or Madam:

As required by 40 CFR 716, as amended effective June 20, 1985 we herewith submit copies of reports of 12 health and safety studies.

Each report is marked with an identifying number at the top of the first page of the report, e.g., D-1722. Use of this identification number in future correspondence regarding this submission will facilitate handling of questions.

The index required by 40 CFR 716.6(b) is enclosed. It lists the Dow identification number and title of each report submitted in CAS number order.

Dow manufactures three products, Dowanol* TMH, Dowanol TEH and Dowanol TBH, which are, respectively, the monomethyl, monoethyl and monobutyl ethers of polyethylene glycol. Each contains 70% or more of the respective monoalkylether of triethylene glycol. Further, the monoalkyl ethers of polyethylene glycol were listed on the Initial Inventory, respectively, under CAS numbers 9004-74-4, 27879-07-8, and 9004-77-7. Thus, for puposes of this submission, please understand that the products reported on the Inventory correspond to products which are listed on the enclosed index as follows:

9004-74-4	contains	112-356
27879-07-8	contains	112-50-5
9004-77-7	contains	143-22-6

^{*}Trademark of The Dow Chemical Company

Document Control Officer Page 2 July 22, 1985

These reports contain some information which is not relevant to health or safety studies of listed chemicals, e.g., references to unlisted chemicals, marketing or process data, account numbers, internal document identification codes or distribution lists. Such information has been deleted from all copies submitted.

Very truly yours,

Leroy Hampton

Research Associate

Regulatory and Legislative I sues Health and Environmental Sciences 2020 The Willard H. Dow Center

(517) 636-6226

rt

Enclosures

TOXICOLOGY RES	EARCH LABORATORY	DOW CHEMICAL U.	s.a. 878	216074
SUBMITTED BY	CHARGE	DATE	K NUMBEI	
		October 28,	1974	
TOXICOLOGICAL PI	ROPERTIES AND INDUST	TRIAL HANDLING HAZARDS	OF:	
REPORTED BY: L.W.	H.O. Yal	DOWANOL TBH	/>/// (.J. Olson	D-001723
FIRAMAPINE SUMMANY	WITH CONCLUSIONS BASED	ON THE SAMPLE RECEIVED, ADDI FIG USES AND FORMULATIONS AR	tional information of developed or	ON INCLUDING THE EFFECTS OF IF PROCESS CHANGES OCCUR.
Laboratory for properties, as	r evaluation of state inhalation	llow liquid, was sub acute oral toxicity, toxicity, and for de ures. The test mate	eye and sefinition of	kin irritation F industrial handli:

for recommendation of additional safety evaluations which may be needed to support manufacture and use of this test formulation.

The acute oral toxicity of the test formulation is low. There is little likelihood that internal injury would result from ingestion of amounts of the

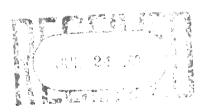
The Toxicology Research Laboratory and/or Industrial Hygiene should be consulted

Eye contact with the test formulation would likely result in moderate conjunctival inflammation, slight iritis, and moderate corneal injury. If contact occurs, contaminated eyes should be flushed with copious amounts of flowing tap water for at least 15 minutes. Safety glasses with side shields are recommended whenever the likelihood of eye contact exists.

material one might encounter incidental to industrial handling.

Prolonged skin contact with the test formulation would likely result in slight redness. Repeated skin contact may produce scaling. The formulation is not likely to be absorbed through the skin in acutely toxic amounts. Reasonable care and cleanliness practiced during industrial handling should avert skin contact problems.

No problem is anticipated from a single, short-term exposure to the vapors of the test material at room temperature.



DISTRIBUTION

\$ P

DOW CHEMICAL U.S.A.

MIDLAND, MICHIGAN .

DATA SHEET OF PROPERTIES, HEALTH HAZARDS, AND PRECAUTIONS FOR SAFE HANDLING OF MATERIALS

discommission and	One resident filters			property and the second		and the same of th	Constanting to the last	and the second second second				Major Carried Williams and Company of the Company o	Annual contract of the second
MOFEC	UL AI	r formala			- Table	NAME DO	WAN	OL T	BH		Control of the Contro		
MOFEC	ULAI	R WEIGHT	INDUSTR	ial Hygh	ENE STANDARD	synchyms Triethyle:	ne o	glyc	ol but	:yl	ether &	hig	hers;
STRVC	FURA	L FORMULA - C	? CO.19~1	HCTI									
			MOL			68			•				
			MOL		_	08							
		DOWN		4B		88							
		DOW	MOL	5B	!	68							_
600	801	LING POINT (E		IX,	ERPLOSIVE LIMITS	FLASH POINT	- Wine	IGNITION	I TEMP.		MELTING POINT		VAPOR PRESS.
	mi	.n.) 515	°F	eeffg.			e _l	-		°C		~	
ON P	COR	ROSIVENESS (To C	emmen Me	nele)			1	ICAL STAT	TE.	C	OLOR		
	L	DWWC			707		Li	<u>quid</u>			Yellow	(cle	ar)
Z,		MICAL REACTIVIT		_					0008 (14	cludo (Concommetten In Air)		
PHYSICAL EMICAL PI	No	ot dange	rous	sly :	reactive								
e M	STA	BILITY (To pH Ch	engo, Most	, Light)									
3	G	ond											
	TYP	'E OF CONTACT			CLASS	IFICATION OF TUXIC	PRO	PERTIES					
				TO SLIGI	use no response or no m ht transitory pain and L injury and/or irritat	OR SLIGHT TRANSIENT							THIS INCLUDES DAMAGE
	EAE				JSE SUFFICIENT INJURY TO	· · · · · · · · · · · · · · · · · · ·		0	me aeer-)				
IN LOSS OF TIME FROM WORK. (THIS INCLUD THE CORNEA WHICH HEALS OR MEARLY HEA AND/OR CONSIDERABLE CONJUNCTIVAL IRR EDEMA.)						arly meals in a week		8 11	VAPOR EXPOSURE MAY CAUSE SEVERE PAIN, LACRYMATION OR SERIO INJURY TO THE FYES.				
	SINGLE PROLONGED EXPOSURE (MOURS) CAI SEVERAL REPEATED PROLONGED EXPOSUR NOT CAUSE THE DEVELOPMENT OF SOME SL						7		SINGLE SHORT EXPOSURE (MINUTES) MAY CAUSE CONSIDERA TION AND/OR SWIGLE PROLONGED OR FREQUENTLY REPEAT POSURES CAUSE A BURN AND/OR MAY CAUSE SYSTEMIC INJU DEATM.				LY REPEATED SHORT
8		SKIN		OF THE APPREC	SKIM. REPEATED PROLONI IABLE IRRITATION, POSSIB	Y CAUSE SOME REDDENING AN EXPOSURE RAPIDLY CAUSE SYSTEMIC INJURY, EVEN DEAT C INJURY DUE TO ABSORPTION.						E BURNS /	AND/OR SERIOUS
properties		DUST OR		AND THE	EMIC INJURY EXPECTED. ROAT IN DUSTY OR MISTY A	TMOSPHERES.	_	۸		PEOP	ATMOSPHERE PAINFUL TO NOSE AND THROAT (INTOLE EOPLE) AND/OR EXPOSURE MAY CAUSE SERIOUS SYSTE EATH.		
TOXIC PA	*	MIST		THROAT AND NOSE IRRITATION IN A DUSTY OR MISTY ATMOS- PHERE IS PAINFUL BUT NOT INTOLERABLE AND/OR PRO- LONGED OR REPEATED EXPOSURES MAY CAUSE SYSTEMIC INJURY. SHORT EXPOSURE (MINUTES) MAY CAUSE DEATH OR S INJURY.							OR SERIOUS SYSTEMIC		
EXPOSURES DO NOT CAUSE ANY EFFECTS OTHER THAN SOME EXPOSURES MAY CA							NO/01	MAY CAUSE INTO		and/or serious syst Irritation to the re			
VAPOR SINGLE EXPOSURES EXCEEDING 1/2 HOUR, OR FREQUENTLY REPEATED EXPOSURES OF SHORTER DURATION, MAY CAUSE SLIGHT AMESTHESIA AND/OR SLIGHT SYSTEMIC INJURY, AND/ OR CAUSE APPRECIABLE, BUT NOT INTOLERABLE, IRRITA- TION OF RESPIRATORY PASSAGES.							CIOUSNESS.	, ang/or serigus syst					
						MEN HENE	y shor				RIOUS SYSTEMIC INJ		
		INGESTION	X	OUSTRIA IF SUBS	is which may be swallow al mandling will not ca tantial quantities shol s serious effects may or	ijse imjuay. Mowever, ILO b e swallowed, moi	7£				7 BE SWALLOWED H CAUSE SERIOUS INJ		TO INDUSTRIAL HANG
	1				9 Jenious ellep 19 may di			•					

COMMENTS

-		A COLUMN TO SERVICE AND ADDRESS OF THE PERSON NAMED AND ADDRES			PR	ECAUTION	S (SEE CO	de Belok)					
		98	GRRES OF EXPOSURE RELATED TO TYPES OF OPERATION		EYES	EYES SKIN		ATION° VAPOR	INGES- TION					
NO	CONTACT	THE	TACTERIZED BY REMOTE OPERATION WITH EQUIPMENT ISOLATED FROM THE WOI PERSONS ENTERING ISOLATED AREAS WILL REQUIRE THE PERSONAL PROTECTM INED FOR IV BELOV.		A	A	OUST OR MIST	A	A					
COS	OR ITACT	STRU	IACTERIZED BY CLOSED SYSTEMS WITH EQUIPMENT VENTED OUTSIDE THE WORK MENT CONTROL; MECTANICAL MANDLING OF MATERIALS IN BULK. EXAMPLES AS IMUOUS REACTORS, STILLS AS O PILTERS; ENCLUSED CONVEYORS; VENTILATE:	RE:	В	A		A	A					
III DAI	ASIONAL LY ITACT	FIBE	ACTERIZED BY MANUAL MANDLING OF MATERIALS IN PACKAGES SUCM AS BAGS, RPAKS. VENTILATION MAY BE PROVIDED FOR SPECIFIC JOBS. MANY BATCH OF INTO THIS CATEGORY.		С	A		A	A					
	DSS NTACT ELY	MENT	ACTERIZED BY HAND OPERATION. EXAMPLES ARE: EMERGENCY REPAIRS, CLE C. CLEANING FILTERS. TAKING CARE OF SPILLS, PACKAGING VOLATILE OR DUS OUT VENTRATION, WHEELING AND TRAY DRYING.		С	В		В	A					
			A NO EYE PROTECTION NEEDED.	USE CHEMICAL W	ORKERS GO	GGLES.								
E١	E CONTACT		B USE SAFETY GLASSES WITHOUT SIDE SHIEL DS.	E USE GAS TIGHT	GOGGLES O	R A FULL F	CE GAS MAS	ĸ.						
			C USE SAFETY GLASSES WITH SIDE SHIELDS.											
	IN".		A BATH AND CLEAN CLOTHES ONCE PER WEEK ALONG WITH THE USUAL WASHING AT MEALTIMES SHOULD BE ADEQUATE PRECAUTIONS. GROSSLY CONTAMINATED CLOTHING AND SHOES MUST BE REMOVED NOT B LATER THAN THE EML OF THE WORK PERIOD AND MUST BE THOROUGHLY CLEANED BEFORE RE-USE. C REQUIRE SHOWER AT THE END OF THE WORK PERIOD AND CLEAN CLOTHING FROM THE SKIN OUT AT THE START OF EACH WORK DAY.	CLOTHING SHOULD DETECTABLE CO TO DETERMINE SPERSONAL CLEA IMPERVIOUS CLEA E RUBBER GLOVES REQUIRED BY CO	ONTACT. EA SUITABLE P INLINESS. OTMING SUCI	ACH USE WIL ROTECTIVE	L REQUIRE S DEVICES AM R BOOTS, RU	ipecial coi D standare Bber aproi	ISIDERATION IS OF IS, AND					
	DUST	<u> </u>	A NO RESPIRATORY PROTECTION.	ANY EXPOSURE D RESPIRATOR BE	ARING THE									
Z.	OR MIST		NO PROTECTION REQUIRED FOR EXPOSURE OF THIRTY MIN. DURATION OR LESS TO OBVIOUSLY DUSTY ATMOSPHERES. EXPOSURES OF LONGER B. DURATION WILL REQUIRE THE USE OF A DUST RESPIRATOR BEARING THE APPROVAL OF THE U.S. BUREAU OF MINES FOR THE USE WITH TOXIC DUSTS.	ER & ANY EXPOSURE TO DUSTY ATMOSPHERES WILL REQUIRE THE USE OF AN A										
immal a tion				NO PRECAUTION C TEM MINUTES. I QUIRE GAS MASS	LONGER EXI	Posurili en		OR REPEAT	ED, WILL RE					
=	¥APOR		NO PRECAUTIONS NECESSARY FOR SINGLE EXPOSURES OF LESS THAN 1/2 HOUR. LONGER SINGLE EXPOSURES, OR FREQUENTLY REPEATED EXPOSURES WILL REQUIRE A GAS MASK OR RESPIRATOR EQUIPPED WITH APPROPRIATE CANISTER. D GAS MASK WITH APPROPRIATE CANISTER.											
	- Andrew		EVACUATE AREA AT ONCE AND ENTER ONLY WITH AIRLINE RESPIRATOR, BLOWER MASK OR CHEMOX MASK.											
INGESTION A NO LINUSUAL PROCEDURES REQUIRED.			A NO LNUSUAL PROCEDURES REQUIRED.	FOOD AND TOS AND FACE SHOP					REA HANDS					
COMM	IENTS	•	*GOOD PRACTICE REQUIRES THAT			·SU	TABLE GA	S MASK C	ANISTER					
			GROSS AMOUNTS OF ANY CHEMICAL											
			BE REMOVED FROM THE SKIN AS)rgani	.c var	or					
			COON AS IS DO ACTICAL				•	-						

REVISED

SIGNED	L. N	1.	Rampy	CHECKED	R.	D.	Olson	000004
DATE	1/23	17	4	DATE	10/	/28/	/74	000004

Summary of Acute Inhalation Toxicity

Material Tested: Downs (FBH (yellowish lig) Methods: 1) species: Cut
Methods: 1) species: /a/ 2) sex: // 3) # exposed: 6 4) # control: 5 5) chamber type: /9/ g/ass / 6) bubbler temperature: /// 7) airflow: ///// 8) duration of exposure: 7///s 9) nominal vapor concentration: 6.52 mg/L
Observations and Results
A) Observations During Exposure
no signs of toxicity, irritation, or mortality or 2)
B. Observations Post Exposure
no signs of toxicity irritation or mortality
or 2)
Mean body weight gain of exposed animals was comparable to the mean body weight gain of control rats.
or 4)
Terminal body weights exceeded the pre-exposure body weights or 6)
•
C. Gross Pathology
NVL in a single control and exposed animal sacrificed 24 hours post exposure.
or 2)

	(3)	NVL in the remaining exposed and control animals sacrificed 2 weeks post exposure.
or	4)	
	5)	NVL in animals which died
or	6)	

R.E. Ulefrei, Jr. 2/8/14

B.R. J. Leeng) 2/8/14

MATERIAL.	Dow	and -	T BH	we with State of the State of t	and the state of t					LUTION IN:		
								MUMDILU1	TED QUATER	Псови		
BEGES Rat	CAVY	RAB			SEX MALE		emale	WEIGH OUT (OTMER)				
CAGE	DATE FED	animal Marking	WEIGHT GM.	Dose Gm./kg.	DOSE CC.	12/14	12/20	ANIMAL WE	icht (GM.)			
2-7	12/13/73	00	217	3.98	185	7	-R			A designation of the second		
	1 4:50	01_	216		185	1.1	ed - 2	Urs.				
		10	215		.85		2-11	1				
-8		11	211			1	267	323	51	1 -		
		02	209		82		2-1	T				
		20	203		.80	1195		327		S		
*								100 mm				
•			·							depotential and the second		
										dentation and an extension and an extens		
										una li mula li		
			(0.00									
de la constantina de												
										in a succession of the section of th		
						7				***************************************		
										p		
										or a survey of the survey of t		
										,		
								1		·		
			DB		1 don	O.B.	Q.B.	0.5	Company of the Compan			
		OBSER	VATION BY		ŧ		<u>a</u>	DATE	2-27-	<u>0000</u>		

MATERIAL ,	Down	~e 7	-BH					PG 100	5 5 501	.UTION IN:
					-04-04-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-			M UNDILUTES	nates C	CORM OIL
PEGES Maat	CAVY	RAS		MOUSE	SEX MALE	П.	emale /	WEIGH OUT		
CAGE	DATE	ANIMAL	WEIGHT	DOSE	DOSE			ANIMAL WEIG		
5000	12-13-73	Marking I	GM.	GM./KG.	CC.	2/14	12/20	12/27		
2-1	9:40	00	210	0.5	10	240	295	332		All participations and the second sec
	•	01	205		.10	198	261	347		
		10	216		.10	237	281	321		
-2			207		10	235	282	320		
		02	221		.//	251	295	341		
		20	200		.10	1 /	with	The state of the s		
			Marija (M. A.			1			•	
- 3		00	189	1.0	,19	220	276	310		
		01	214		.21	237	283	320		THE PARTY OF THE P
		10	185		.18	208	262	303		
-4		11	217		.21	\angle	reth			1/
		02	204		,20	230	281	316	9	
		20	200		20	233	284	335		
-5		00	191	2.0	.38	195	250	291		the Control of the Co
		01	199		.39	1 5	-D.			
		10	213		.42	226	285	334		
-6		11	195		. 39	128	251	284	and the state of t	Organisation (1998)
		0a	205		,41	182	252	297		· · ··································
	·	20	208		,41	2.34	279	314		
	Sertimanian married to the second Second									
			0.0	THE ACTION AND ADDRESS OF THE ACTION AND ADD		_				
			OB		地	0B.	0,6	D.B.	MAN SOLVEN MANAGEMENT AND	· communication
		OBSERV	ATION BY					DATE	0 (00003
COMMENTS ON OF THIS PAGE					NV.	ule		_	= 27-	73

				CHA	ARGE NO								
MATERIAL	77		•	Ŧ Ø	711				SPECIES .		SEX.		
		warol	7-1	5	<u> </u>	a	DLECULAR WE	IGHT	RAT. OR:		<u> Jake</u>		<u>nal</u>
		Cons	<u> </u>							370	-23		
CONDITIONS OF E													Nigeron.
VAPOR OR GAS CON	-		P.P.M.	SAT.	VAPOR AT	<u> </u>	<u>C</u>	HOURS	PUMP HOUS	E TEMP.	MOCS 2°	TEMP.	
CONDITIONS OF O	DUST PERATION		<u>м_{р. м}3</u>	<u>Ц</u>	19 L.GLASS	S JAR C	CHAMBER NO.		METHOD				<u>]c</u>
Commence of the State of the St	LE SYRINGE	PUMP				OUAL SYRIN	GE PIIMP			A	D El Aw		
SYRINGE NO.				Î	GAS BAG RESERVOIR	The same of the sa	LIQUID	DIR	ROTAMETER		R FLOW		
SPEED SETTING	Control Contro			DEL	IVERY	ML /H		LP.M. MOTOR	SETTING				0
DELIVERY		ML.	MN.	DRIV	⁄E GEAR	TEETH	CHANGE GEAR	TEETH	DELIVERY			٤.,	/Mil
ANIMAL		7			9	10	(1						
DATE	OBSERVA-		<u></u> Z	2				<u></u>					***************************************
. / /	TION SY						TOUR WEI	GHT, GRAMS					
112/74	<u> </u>	266	<u>3a</u>	2	274	310	263						
1/3/14	1811	270	29	7	272	3/3	268						
1/7/74	REH	W	32	3	298	332	283						
1994	REM	BILL	330	2	.305	347	290	Berlinder.		on of the change in the change	THE PERSON NAMED OF THE PE	CLIPA Y ALTERNATION AND THE PROPERTY OF THE PR	
1/1/174	REU	Ja Ja	(34	14	318	360	302						HZmatus?
1111174	REM	1131 19th	23	5	731)	376	310						
1/16/14	1811	1	36	15	32/2	385	315						
													Profession.
				\dashv	$\rightarrow \gamma$			1/1/1	\				
REMARKS					son	16-1		1	<u> </u>				
MEMORY 2									8	TIME AIRF	LOW STARTED	- Children	
										TIME EXPC	SURE STARTE	D	
										TIME EXPC	SURE ENDED		
										TOTAL RU	WING TIME		
										WT. BUSSL	er before		(
										WT. BUSSL	ER AFTER		(
•	•									ANOUNT US			(
										CALC. APP VAPOR CON	rox. Saturat KC.	ied <u>P.</u> 1	P.M
		5	2_			-g							
9 GHED		<u> </u>	2, 1	West 1	eles)	<u>L.</u>				DATE	6/74		_
7001 G-7700 PRINTED 1	0 U.S.A. \$5-63	Control of	and the second desired	V	V						000	007	n

ACCOUNT NO._____

MARCE.	P. 6/2
CHARGE	

LIGURE DUST MALAGED MALAGER MA	MATERIAL			/		RU				SPECIES		SEX /				
CONDITIONS OF EXPOSURE VAPOR OF COALCING. P. P.M. SAT. VAPOR AT 100 °C NOUSE OF CREATER SINGLE SYRINGE PUMP SINGLE SYRINGE PUMP SOULL SYRINGE SOULL SYRINGE SOULL SYRINGE SOULL SYRINGE SOULL SYRING			2 some			<u>DQ</u>	M	OLECULAR WEI	СНТ			2000-0000-00-00-00-00-00-00-00-00-00-00-	FEMALE			
NAPPE OR CAS CONC. P. P.M. SAT. VAPOR AT 100 °C. HOURS PLANS FROM. M. 10 PF DECRATOR SHOULE SYRHOGE PUMP SYRHOGE NO. SRESHTON STAMETER NO. SORTHER NO.					· · · · · · · · · · · · · · · · · · ·	-year-thinks			on the same of the same provides		370	7-26				
LEQUE DUST 194.2 TO LOASS AR CHAMBER NO. METHOD A 18 CC. CONDITIONS OF PERATURE SINGLE STRINGE PUMP SINGLE STRINGE PUMP SINGLE STRINGE PUMP DUAL STRINGE PUMP SINGLE STRINGE PUMP SOLARS THE PUMP DUAL STRINGE PUMP SOLARS THE PUMP ATRICOR DELVERY MA. ARIA. DELVE GEAR TETH CARACE TEETH CARACE TOWN BY THOSE STRING CA. ANIMAL ANIMAL ANIMAL DAVE COSSEN/A: 12 3 4 5' & BODY BEIGHT, GRAMS 11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/	CONDITIONS OF E	XPOSURE														
DATE PLANT STREET BOOK STRING PUND DELIVERY MA.AR. R.P.A. MOTOR STRING CO. DATE OF THOSE STRING PUND DELIVERY MA.AR. R.P.A. MOTOR STRING CO. DATE OF THOSE STRING DELIVERY MA.AR. R.P.A. MOTOR STRING CO. DATE OF THOSE STRING DELIVERY MA.AR. R.P.A. MOTOR STRING CO. DATE OF THOSE STRING DELIVERY MA.AR. R.P.A. MOTOR STRING CO. DATE OF THOSE STRING CO. THE EXPOSURE GRADE STRING CO. DATE OF THE EXPOSURE GRADE STRING CO. THE EXPOSURE GRAD					SAT.	VAPOR AT	100 %		HOURS	PUMP HOUSE TEMP. °C ROOM TEMP. °C						
STRINGE PURP DUAL SYRINGE PURP DUAL SYRINGE PURP DUAL SYRINGE PURP DASSENTOR DESCRIPTING DELIVERY M. ARR. R.P.A. HOTOR SETTING OR. OR. OR. OR. OR. OR. OR. OR	AEROSOL			Mg. 14 ³	L	19 L.GLASS	JAR C	HAMBER NO.	-	METHOD			С			
SYTTING NO. RASSENGE PRESERVOID ROTAMETER NO. RESERVOID RESERVOID ROTAMETER NO. RESERVOID RESERVOID ROTAMETER NO. RESERVOID RESERVOID ROTAMETER NO. RESERVOID RETTING CA. REPAIR STORY REPAIR STORY CA. REPAIR STORY	CONDITIONS OF O	PERATION		*	T								maybeness,			
DELIVERY ML.AMN. DRIVE GEAR TEETH CAMBE TEETH DELIVERY LAIN. ANHARA. DATE OBSERVA. DATE OBS	SINC	LE SYRINGE	PUMP	the terrorial	ļ		The state of the s				All	RFLOW	**************************************			
DELIVERY MI. MIN. DRIVE GEAR TEETH GEAR TEETH DELIVERY L. MIN. ANIMAL MARK DATE OBSERVA TION BY BODY WEIGHT, GRAMS 1/2/4 Key 262 306 319 300 20 278 1/3/4 Key 267 305 312 304 298 298 1/1/4 Fey 326 333 326 303 300 1/9/4 Fey 326 328 337 320 311 308 1/9/4 Fey 34 340 350 336 323 315 1/1/4 Fey 34 340 350 336 323 315 1/1/4 Fey 34 340 350 336 323 328 1/1/4 Fey 34 340 350 36 323 329 1/1/4 Fey 35 358 TIME EXPOSURE STARTED 930 TIME EXPOSURE STARTED 255 TIME EXPOSURE STAR	SYRINGE NO.				igspace	RESERVOIR RESERVOIR RO					TAMETER NO.					
MAMMAL DATE THOMBY DATE THOMBY DATE THOMBY DODY VEIGHT, GRAMS 2	SPEED SETTING			-	DEL	IVERY	ML/H	· · · · · · · · · · · · · · · · · · ·	P.N. MOTOR	SETTING			<u>Or</u>			
DATE OBSERVA. 12/74 150 89 300 20 278 1/3/14 1/4 267 305 312 304 298 989 1/3/14 1/4 267 305 312 304 298 989 1/3/14 1/4 267 305 312 304 298 989 1/3/14 1/4 267 326 333 326 303 300 1/3/14 1/4 1/4 328 337 320 311 308 1/3/14 1/4 1/4 3/4 3/4 300 397 337 320 1/4/14 1/4 1/4 3/4 3/4 300 397 337 320 1/4/14 1/4 1/4 3/4 3/4 300 397 337 320 1/4/14 1/4 3/4 3/4 300 397 337 320 1/4/14 1/4 3/4	DELIVERY		ML.	/MIN.	DRIVE GEAR TEET			GEAR CHANGE	ТЕЕТН	DELIVERY			L./Min.			
1 10 10 10 10 10 10 10	animal			2	, .	3	9	5'	· G							
1/3/74 REU 267 SOS 312 304 278 789 1/1/14 REU 267 305 312 304 278 789 1/1/14 REU 326 333 326 303 300 1/1/14 REU 328 337 320 311 308 1/1/14 REU 326 326 323 315 1/1/14 REU 327 340 250 336 323 315 1/1/14 REU 327 340 326 327 328 1/1/14 REU 328 327 328 327 328 1/1/14 REU 328 328 327 346 338 1/1/14 REUNINATION STATED 320 1/1/14 REUN	DATE							BODY WEI	GHT, GRAMS							
1/14 Ref 326 333 326 303 300 1/14 Ref 328 339 320 311 308 1/14 Ref 340 250 336 323 315 1/14 Ref 340 350 336 323 315 1/16 Remarks 1/2 - ro signs of topically started 1/2 Time exposure started 2.5 Time exposure started 2.7 Time exposure	1/2/74	KEU	262	300	5	319	300	223	278			necessity de partier de la constitución de la const				
	1/3/74	REU	267	30	5	312	304	298	289							
	1/1/14	REI	1	326	<u></u>	333	326	303	300							
## 184 346 360 \$\frac{3}{337} 320 11/6 (M) 184 358 373 354 346 338 1/2 - no signs of topical, time exposure started 930 time exposure ended 350 time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 250 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 350 total running time 17 fbc. 1/2 - no signs of topical, time exposure ended 17 fbc. 1/2 - no signs of topical, time exposure ended 17 fbc. 1/2 - no signs of topical, time exposure ended 17 fbc. 1/2 - no signs of topical, time exposure ended 17 fbc. 1/2 - no signs of	1/9/14	P54	of the	32	3	337	330	311	308				The state of the s			
MIGHT REM 358 313 354 346 338 TIME EXPOSURE STARTED SINGLET AND AND AND THE EXPOSURE ENDED TOTAL RUNNING TIME 17 flow. WT. BURBLER BEFORE 352.26 G WT. BURBLER AFTER 350.52 G AMOUNT USED 2. 740 G CALC APPROX. SATURATED YAPOR CONC. 2. 740 G LAUL = 6.52 Ag/L BIONED REMARKS DATE DATE DATE	111/74	fu	Port	39	10	350	336	323	315							
REMARKS Jane Jane	1/1/17	PEH	LIZ.	34	16	360	397	337	33							
REMARKS 1/2 - ro signs of tipicity Time AIRFLOW STARTED 3°0 Time EXPOSURE STARTED 3°0 Time EXPOSURE ENDED 3°0 Total Running Time 9 fm. Wt. BUBBLER BEFORE 353.26 G Wt. BUBBLER AFTER 350.52 G AMOUNT USED 2.74 G Calc. APPROX. SATURATED F.P.M. 2, 4002 6.52 mg/L 2, 4003 4202 6.52 mg/L SIGNED A.E. Market 1000 1000 SIGNED A.E. Market 1000 SIG	1116/74	REU		35	8	373	354	346	338		•		yuin u yalaaniin ya ahaa ahaa ahaa ahaa ahaa ahaa ahaa			
REMARKS 1/2 - ro signs of tipicity Time AIRFLOW STARTED 3°0 Time EXPOSURE STARTED 3°0 Time EXPOSURE ENDED 3°0 Total Running Time 9 fm. Wt. BUBBLER BEFORE 353.26 G Wt. BUBBLER AFTER 350.52 G AMOUNT USED 2.74 G Calc. APPROX. SATURATED F.P.M. 2, 4002 6.52 mg/L 2, 4003 4202 6.52 mg/L SIGNED A.E. Market 1000 1000 SIGNED A.E. Market 1000 SIG	• •						h_									
TIME EXPOSURE STARTED 830 TIME EXPOSURE STARTED 830 TIME EXPOSURE ENDED 320 TOTAL RUNNING TIME 17 Pm. WT. BUBBLER BEFORE 353.26 G WT. BUBBLER AFTER 350.52 G AMOUNT USED 2.74 G CALC APPROX. SATURATED VAPOR CONC. 2, HOag 420L = 6.52 mg/L BIGNED DATE	◆ESSCON-NECESSALSO On N° Coherences references		Control of the Contro				sent	Lupe	12 /	11161	19	9 (1)	- The second section - The section -			
incluter All super normally Time exposure ended 250 total running time 17 fmc. The internal timels: Wt. Bubbler before 353.26 G Wt. Bubbler After 350.52 G AMOUNT USED 2.74 G CALC APPROX. SATURATED YAPOR CONC. 2, HOag 420L = 6.52 mg/L DATE DATE DATE	REMARKS	_			- Ny		,	,			Time ARF	LOW STARTED	£13′			
incluter All super normally Time exposure ended 250 total running time 17 fmc. The internal timels: Wt. Bubbler before 353.26 G Wt. Bubbler After 350.52 G AMOUNT USED 2.74 G CALC APPROX. SATURATED YAPOR CONC. 2, HOag 420L = 6.52 mg/L DATE DATE DATE				_	•		1 1.	· · · - /			TIME EXPC	SURE STARTE	830			
To external timele: To substant timele: Wt. BUBBLER BEFORE 353.26 G. Wt. BUBBLER AFTER 350.52 G. AMOUNT USED 2.74 G. CALC. APPROX. SATURATED VAPOR CONC. 2, HOag 420L = 6.52 Ag/L DATE 1/1/14		1/2					g / 1/19	ucey		,	TIME EXPO	SURE ENDED				
WT. BUBBLER AFTER 350.52 G AMOUNT USED 2.79 G CALC. APPROX. SATURATED F.P.M. 2, 700 g 420L = 6.52 Ag/L DATE DATE		·	d	jiri	Li.		HIL	refe	nd me	mll		······································	7he.			
WT. BUBBLER AFTER 350.52 G AMOUNT USED 2.79 G CALC. APPROX. SATURATED F.P.M. 2, 700 g 420L = 6.52 Ag/L DATE DATE						1	1	Li	<i>[</i>] -		WT. BUSSL	ER BEFORE	<i>353,26</i> G			
CALC. APPROX. SATURATED F.P.M. 2, 7009 4202 = 6.52 mg/L DATE 1/19/4				Jan		Morra		ronaci	C., O. u		WT. BUBB!	ER AFTER	50.52 G			
2,700g 420L = 6.52mg/L BIGNED A. E. Melpey J.								E.	ZZN.		AMOUNT U	SED	2.74 6			
2,700g 420L = 6.52mg/L BIGNED A. E. Melpey J.											CALC. APP	ROX. SATURAT	ED F.P.M.			
SIGNED R.E.Mepes J.										2,7100	2	. /	p			
1. C. Mps J.								•	ø	4202	= 6.	527/4				
1. C. Mps J.				+	/											
OOO 1 DEFROND	SI GH CD		7.8.1	Ħ.		1					DATE	18174				
FORM C-7780 PRINTED IN B.S.A. 85-65	400 - 100 -			7114	¥	/* ·		ent of the Content of			<u> </u>	0000	1 DEFRORT			

d_	Downal +BH								rassiy n	3	34	D	}			
									23 4 07 CASE NO. 207-1							
EST BY RE	PEATED APPLICATH	DN AS_		MATE!	RIAL ION M:											-1940 <u></u> 8500
				1111	12/		12/1	W	14.1	N	al.	12/2	77			
47E		710	Lar	42	1/12	MH	-44		-	720	_	1724	, PÍ		<u> </u>	
ays on ex	POWRE	0		2	3	4	_7_	8_	9,	10][14	2			L
on Ear	application no.	Contract of the contract of th	2	3	4	5	10	9.	8	9	10					-
	HYPEREMIA		3	3	3	3	3	3	3	3	3	V				- Andrews
	EDEMA									1		1				
	NECROSIS				1				1			ı	(1
*	EXFCLIATION				1							1	to gillo			
8 T 8 8	HAIR LOSS	J.	1									1	1			
2	SCAB					9		1		Ĺ		1				
adbasenten	SCAR					1		1		Ì		1				
	THICKNESS (MM)															
											1		1	1		1
od Odomen Intact	APPLICATION NO.		2	13	4	5	6	7	8	9	10					1
	HYPEREMIA				\Box		1				L	P		Name of the last o		
	EDEMA						1		-	ſ		P				
	NECROSIS				ΠÏ	\Box		7	1		1	(Bassie			
ŧ.	EXFOLIATION	1			3	13	34	31	3+	3+	3+	3				
MET WOO	SCAS		T		1		1	Ī	1			1	· ·			
	SCAR		П	Ti						1					and the same of th	ZERHOSO
	THICKNESS (MM)															
					7		7			1	ĝ	1			1	
CONEM ADDMEM ADRADED	APPLICATION NO.		12	13	_									<u> </u>		£
. METHOD C.	Hyperemia		3									1		***************************************		
	EDEMA						1					1		West Control	Ļ	
	NECROSIS						1					•				_
	EXPOLIATION				3	3	34	3+	3上	3+	13	13	<u>LĻ</u>			
	SCAB								ľ			0	Ц_			_
	SCAR		1									1				_
veignt im	KG	3.2	١	X		9	364					32	19.30			
	MAA RM	Hr/	10	W	Rus P			1411	WYY	KC/	144	171	No.		negateoite (gen	
osservat	ION BY ITS ON BACK OF THIS			THE STATE OF THE S	450			TEAT	113.7		TE7		TON		<u>į</u>	

ram Crade Color Coor

SR. weters

ACCOUNT NO. _____

818216014

EYE CONTACT TEST	8.80	CHEMICAL	.newarci	e laboratory
Down TBH	Resert Inc.	78		
· · ·		LAL.S	PEMALI	<u> </u>
CONCENTRATION S S/V UMDALUTED	20	2-2		
SOLVENT: SATER PROPYLEME GLYCOL (GTHER)				- Charles - Char
COMMENTS	repoxie	VASHED (LEFT)	Washed (Right)	DATE AND INITIALS
MMEDIATE:	PAM	Calendar	edito (Signatura	121
	COMPRICTIVA	and a second	1	11173
	CD RIVEA			
AFTER ONE HOUR (ORHOURS)	CONCURNCTIVA			1
	BEFORE	3	2	12/11
	S AFTER	-		165
	T STAIN	14	<u> </u>	
	effects •			
AFTER 24 HOURS	CONLUNCTIVA	EL	4	
	38 PORE	1.6	14	12-13
	STAM APTER	Y	1	
·	STAIN	4	4	
	mternal Eppocts -	3	3	
AFTER & HOURS	COMPONETIVA	3	2	
	II serone			12-13
	574M	3	3	12-13
	STAIN	4	4	
	etpects.	3	3	No. of the state o
AFTER DAYS	CONJUNCTIVA	1	17	1//
	legrong	1 4	1 7	12/19/7
	STAIR	<u> </u>	1/	Met
	S APTER STAIR			
	MTERNAL SPF 8CTS •	/	/	-
· DESCRIPE UNDER SIGNED LOGISTIC	MTE /2	119/9	77	
PRINT C-5000 PRINTED 10 B.S.A. 68-68		4	2	(F89NT)